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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,457	07/31/2003	David Edler	D4861-00040 (3230-37)	3808

8933 7590 02/26/2004

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EXAMINER

HEWITT, JAMES M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/632,457

Applicant(s)

EDLER, DAVID

Examiner

James M Hewitt

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Attachment A

DETAILED ACTION

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

Claims 1-17 are objected to because of the following informalities:

In claim 1 line 12, the phrase "the edge" lacks antecedent basis.

In claim 4 lines 1-2, the phrase "high temperature gasket material" should be replaced with "gasket material capable of withstanding high temperatures".

In claim 11 line 13, the phrase "the edge" lacks antecedent basis.

In claim 13 line 1, it is apparent that "2" should be "12".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-11, and 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Mau (US 6,173,995).

With respect to claim 1 and with particular reference to Figures 2 and 3, Mau discloses a fitting for an end of a length of tubing having corrugations ranging between a maximum diameter and a minimum diameter, the fitting comprising: a retainer (32) having at least one ridge (38a) sized to extend inwardly to a radius between said maximum and minimum diameters for gripping the tubing axially above an endmost corrugation of the tubing, a body (14) having a hollow cylindrical part sized to admit the retainer, the body having at least one threaded surface, a nut (24) having a thread complementary with the threaded surface of the body, the nut having a cap part (28) configured to engage the retainer for urging the retainer axially into the body with threaded advance of the nut relative to the body; wherein the body has an inwardly tapered conical surface with a circular outer radius surrounded by an annular groove, and wherein the edge is disposed between said maximum and minimum diameters, whereby advance of the nut on the body turns the endmost corrugation over said edge.

With respect to claim 5, wherein the fitting body has a second threaded surface bearing a pipe thread.

With respect to claim 6, wherein the ridge of the retainer is circumferentially split to enable engagement over the maximum diameter.

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With respect to claim 7, wherein the retainer comprises a plurality of ridges (38a, 50b) that are complementary with the corrugations of the tubing, and a flanged part that is positioned for engagement with a flanged part of the nut.

With respect to claim 8, wherein the conical surface of the fitting and the annular groove form a triangular cross section with a radially sloped side and a longitudinal side forming a right triangle. Refer to Attachment A.

With respect to claim 9, wherein the edge is placed to fall between 40% and 60% of a radial distance between the maximum and minimum diameters. Refer to Figures 2 and 3.

With respect to claim 10, wherein the edge is placed to fall substantially at a midpoint between the maximum and minimum diameters. Refer to Figures 2 and 3.

With respect to claim 11, Mau discloses a coupling for carrying a fluid, comprising: a length of tubing (12) having corrugations ranging between a maximum diameter and a minimum diameter; a retainer (32) having at least one ridge (38a) sized to extend inwardly to a radius between said maximum and minimum diameters for gripping the tubing axially above an endmost corrugation of the tubing, a body (14) having a hollow cylindrical part sized to admit the retainer, the body having at least one threaded surface; a nut (24) having a thread complementary with the threaded surface of the body, the nut having a cap part (28) configured to engage the retainer for urging the retainer axially into the body with threaded advance of the nut relative to the body, wherein the body has an inwardly tapered conical surface with a circular outer radius surrounded by an annular groove, and wherein the edge is disposed between said

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maximum and minimum diameters, whereby advance of the nut on the body turns the endmost corrugation over said edge.

With respect to claim 14, wherein the ridge of the retainer is circumferentially split to enable engagement over the maximum diameter.

With respect to claim 15, wherein the retainer comprises a plurality of ridges (38a, 50b) that are complementary with the corrugations of the tubing, and a flanged part that is positioned for engagement with a flanged part of the nut.

With respect to claim 16, wherein the conical surface of the fitting and the annular groove form a triangular cross section with a radially sloped side and a longitudinal side forming a right triangle. Refer to Attachment A.

With respect to claim 17, wherein the edge is placed to fall between 40% and 60% of a radial distance between the maximum and minimum diameters. Refer to Figures 2 and 3.

With respect to claim 18, Mau discloses a method of terminating a length of corrugated tubing comprising the steps of: cutting the tubing (12) at a longitudinal point spaced between maximum diameter points of adjacent corrugations, engaging the tubing in a retainer (32) having a ridge (38a) placed axially behind at least an endmost corrugation of the tubing; forcing the endmost corrugation axially against an inwardly conical surface having an edge surrounded by an annular groove, the edge being disposed between the maximum and minimum diameters, thereby folding the endmost corrugation over the edge to provide a circular sealing junction between the retainer and the edge. Refer to Figures 2 and 3.

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With respect to claim 19, further comprising spacing the edge radially inwardly from the maximum diameter and forming a bead in the endmost corrugation radially outside the circular sealing junction. Refer to Figures 2 and 3.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-4, 12-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mau (US 6,173,995) in view of Laney (US 4,437,691).

Regarding claim 2-3, 12-13 and 20, Mau fails to disclose a gasket disposed in the annular groove, the gasket sealing against a radially outer part of the endmost corrugation wherein the edge which forms the endmost corrugation into a bead compresses the gasket. Laney, in Figures 9 and 10, discloses a connector for connecting corrugated tubing, and provides an O-ring in an annular groove to abut and seal against a beaded end corrugation of a corrugated tube. The O-ring effects a fluid tight seal. In view of Laney's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Mau to include an O-ring in the annular groove to abut and seal the beaded end corrugation of Mau's tube in order to effect a fluid-tight seal.

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Regarding claim 4, Laney fails to teach that his O-ring is capable of withstanding high temperatures yet it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the O-ring of a material capable of withstanding high temperatures, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Conclusion

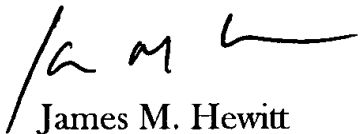
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'J M Hewitt', with a stylized flourish at the end.

James M. Hewitt
Patent Examiner
Technology Center 3600